

CUSTOMER PROFILE

## Garden City Co-op

### Challenges

- Manual processes creating inefficiencies in operations
- Future server growth impeded by limited resources and lack of physical space

### Solutions

- EMC CLARiiON CX4-120 networked storage
- VMware vSphere virtualization and virtual thin disk provisioning solution

### Key results

- Thousands of dollars in annual cost savings from reduced server and storage expenditures, energy usage, and IT administrative time
- Storage utilization increased from 75 to 90 percent
- Fast deployment of new virtual servers in a day versus weeks for physical servers
- Infrastructure scaled from a few to 80 users without increasing the two-person IT staff

## Small business consolidates and virtualizes storage and servers to expand infrastructure with limited resources

Garden City Co-op is an agricultural cooperative that arranges cost-effective purchasing, storage, and distribution of grain, fuel, and other resources for member farmers in southwest Kansas. While the agricultural industry isn't known for its rapid adoption of IT, Garden City Co-op realized it could improve profitability and efficiency by automating many of its manual processes.

The agricultural cooperative started small by gradually adding new desktops and laptops equipped with e-mail and collaboration applications. The company initially deployed applications on physical servers, but its IT staff of two employees soon realized they didn't have the physical space or budget to accommodate the additional servers needed to expand their capabilities.

"Virtualization was starting to hit, and we saw its advantages for a small growing company like ours," says Jeff Boyd, IT manager. "However, we needed to keep our costs down. We were lucky because we didn't already have a vast infrastructure like some large companies. We didn't have to deal with any big technical hurdles or manage people afraid to adopt virtualization. We could start with virtualization right away."

### Cultivating an IT infrastructure with EMC and VMware

To address its growing data storage requirements, Garden City Co-op installed an EMC® CLARiiON® CX4-120 storage area network (SAN) to support file sharing; VMware® virtual servers; and Microsoft® Exchange® Edge e-mail, Active Directory, network monitoring, and document management applications. The CLARiiON brings 300-gigabyte Fibre Channel drives and iSCSI connections to Garden City Co-op's existing network.

Garden City Co-op also implemented VMware vSphere™ for server virtualization and virtual thin disk provisioning. Ten vSphere virtual machines and two virtual desktops are consolidated onto one physical server.

### Significant IT infrastructure growth on a limited budget

Storage consolidation, server virtualization, and virtual provisioning have enabled Garden City to accommodate significant growth of its IT infrastructure on a limited budget. Although Garden City Co-op's IT environment has grown from a few to 80 desktops and laptops in only two years, the company is still on its first set of CLARiiON disk drives. Garden City also estimates it would need 15 physical servers instead of the five it uses to run 10 virtual machines and two virtual desktops.

With vSphere virtual thin disk provisioning, Garden City Co-op can access a greater percentage of storage residing on the CLARiiON SAN. Traditionally, IT organizations over-provision storage to each server individually to ensure adequate performance and capacity. Recognizing that the combined server environment will use less storage than is allocated, Garden City Co-Op uses vSphere to present storage to the servers as needed from a shared, central pool.

“As we’ve added more virtual machines, we’ve increased utilization of our storage space 75 percent,” says Boyd. “vSphere enables us to allocate space from a pool of virtualized thin disks to a new virtual machine, but it’s not necessarily using it all. It’s really helped save money because we can use what we have for a longer period of time and postpone buying more disks.”

“With CLARiiON and vSphere, our small business is getting an enterprise-level solution,” says Boyd. “We’ve been able to add infrastructure and go from a few to 80 users with the same two IT people. We’re saving thousands of dollars annually because we’re not buying physical servers; we’re using less air conditioning and electricity, and we don’t have to use more office space for extra servers.”

Virtualization has given Garden City Co-op a distinct competitive advantage as well.

“Because of virtualization, we can quickly deploy applications,” explains Boyd. “We can have a full virtual server up and running in a day because we don’t need to order physical hardware, which would take weeks. We’re light years ahead of many of the other smaller cooperatives.”

Fast deployment of virtual servers enables Garden City Co-op to improve its customers’ businesses as well.

“Our customers rely on us for pricing and market information related to grains and fuels and such,” says Boyd. “With rapid deployment of new applications, we were able to very quickly start providing our customers with online information they need to make better purchasing decisions.”

Tight integration between the CLARiiON system and vSphere is also valued.

“With vSphere we can see very deeply into our CLARiiON to view free space and see how the LUNs are provisioned by the virtual machines,” says Boyd. “This in-depth management reporting is very valuable to us in terms of planning for the future. We’ve been very pleased with the EMC CLARiiON. It’s a very hands-off solution that requires very little management. We value the extra time CLARiiON gives our small staff to focus on IT initiatives that help us provide better services to our farming members.”

Garden City is confident it has an infrastructure that can evolve as its requirements expand.

“Being able to use the CLARiiON with 10-gig Ethernet, or new disk types like SATA in the future, is very valuable to a small business with limited resources. The CLARiiON system’s flexibility doesn’t tie us to specific technologies, so we can move in different directions without having to invest in an entirely new infrastructure. Since we’ve only begun to scratch the surface of the resources available to us with storage and server virtualization, we know we have the flexibility to pursue many more initiatives by leveraging the investments we’ve already made.”



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